

# INTERNATIONAL SEARCH REPORT

Int'l Application No  
PCT/GB2004/003077

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 C08J9/20 C08J9/14

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C08J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 987 293 A (SHELL INT RESEARCH) 22 March 2000 (2000-03-22) cited in the application claims 6,8,9,12 column 9, line 1 - line 43; example 1 column 10, line 19 - line 39; example 4 column 2, line 53 - line 55 -----	1,3-11, 15,18-26
Y	FR 2 780 406 A (BP CHEM INT LTD) 31 December 1999 (1999-12-31) claims 1,16 page 19, line 1 - line 6 page 19; table 1 -----	12,14,17
X	----- -----	1-6,9-11

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- 'A' document defining the general state of the art which is not considered to be of particular relevance
- 'E' earlier document but published on or after the International filing date
- 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- 'O' document referring to an oral disclosure, use, exhibition or other means
- 'P' document published prior to the International filing date but later than the priority date claimed

- 'T' later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- 'G' document member of the same patent family

Date of the actual completion of the International search

22 October 2004

Date of mailing of the International search report

04/11/2004

Name and mailing address of the ISA

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International Application No  
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 96/15182 A (SHELL INT RESEARCH) 23 May 1996 (1996-05-23) claims 1,3,7,8 page 5, line 5 - page 6, line 19; examples 1-4 page 3, line 18 - line 19 page 4, line 13 - line 14 page 7; table 1 -----	1-4,6,7, 9-11 12,14,17
Y	WO 02/46284 A (NOVA CHEMICALS INC) 13 June 2002 (2002-06-13) cited in the application claims 1,4,6-8,11,18,26-28 -----	1-20
A		

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national application No.  
PCT/GB2004/003077

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple Inventions in this International application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11, 26 (partly)

Expandable polystyrene beads comprising 100 parts of a polymer of styrene, 2.2 to less than 4.0 parts of a blowing agent and 0.01 to 0.4 parts of a plasticising agent.

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2. claims: 12-25, 26 (partly)

Use of pre-expanded polystyrene beads having a bulk density of from 40 to 190 g/l for manufacturing medium-density expanded molded polystyrene objects.

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No	
PCT/GB2004/003077	

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
EP 0987293	A 22-03-2000		EP 0987293 A1 AU 761299 B2 AU 6194299 A BR 9913763 A CA 2341273 A1 CN 1111559 B WO 0015703 A1 EP 1114090 A1 HU 0103666 A2 JP 2002524638 T NO 20011321 A PL 346696 A1 US 6538042 B1	22-03-2000 05-06-2003 03-04-2000 05-06-2001 23-03-2000 18-06-2003 23-03-2000 11-07-2001 28-01-2002 06-08-2002 08-05-2001 25-02-2002 25-03-2003
FR 2780406	A 31-12-1999		FR 2780406 A1 BG 103533 A CA 2276314 A1 EP 0969037 A1 HU 9902213 A2 NO 993199 A SK 88299 A3 TR 9901463 A2 US 6271272 B1	31-12-1999 31-08-2001 29-12-1999 05-01-2000 28-07-2000 30-12-1999 10-05-2001 21-01-2000 07-08-2001
WO 9615182	A 23-05-1996		AU 4117596 A WO 9615182 A2	06-06-1996 23-05-1996
WO 0246284	A 13-06-2002		AU 3082202 A BR 0115923 A CA 2430615 A1 CN 1478120 T EP 1352022 A1 HU 0303866 A2 NO 20032500 A WO 0246284 A1 US 2002117769 A1	18-06-2002 20-01-2004 13-06-2002 25-02-2004 15-10-2003 01-03-2004 03-06-2003 13-06-2002 29-08-2002